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AMENDMENTS TO THE CLAIMS

The following is a listing of claims that replaces all prior versions, and listings, of claims in the application. Underlining denotes added text. Strikethrough and double brackets denote cancelled text.

- 1. (Currently Amended) A recombinant expression vector eomprising consisting of in operable combination i) a nucleic acid sequence of interest encoding Factor IX protein, ii) a <a href="https://human.pactor.org
- 2. (Currently Amended) A method of introducing a transgene into for expressing Factor IX protein in a cell, comprising:
 - a) providing:
 - i) an isolated mammalian cell,
 - ii) a nucleic acid sequence of interest encoding factor IX protein,
 - iii) a human Factor IX promoter sequence, and
 - iv) one or more age an age regulatory sequence consisting of one or more of sequences, wherein said age regulatory sequences consists of a portion of SEQ ID NO:3 defined by SEQ ID NO:93 or a portion of SEQ ID NO:93 comprising the sequence of SEQ ID NO:91 SEQ ID NO:3, SEQ ID NO:91, and SEQ ID NO:93 wherein said age regulatory sequence is located 3' of said nucleic acid sequence encoding Factor IX protein;
 - b) operably linking said nucleic acid sequence encoding Factor IX protein, said promoter sequence, and said one or more age regulatory sequences sequence to produce a transgene; and

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c) introducing said transgene into said cell to create a treated cell under conditions such that said nucleic acid sequence of interest encoding Factor IX protein is expressed in said treated cell.

- 3. (Currently Amended) A substantially purified <u>age regulatory</u> nucleic acid sequence comprising at least a portion consisting of SEQ ID NO:93.
- 4. (Currently Cancelled).
- 5. (Currently Amended) The nucleic acid sequence recombinant expression vector of Claim 1, wherein said age regulatory sequence consists of SEQ ID NO:93 portion is selected from SEQ ID NO:91, SEQ ID NO:94, SEQ ID NO:95; SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:108, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, and SEQ ID NO:144.
- 6. (Currently Amended) [[The]] <u>A substantially purified</u> nucleic acid sequence of Claim 3, wherein said portion is consisting of SEQ ID NO:91.

Claims 7-11 (Currently Cancelled).

12. (Currently Amended) The expression vector of Claim [[7]] 1, further comprising in operable combination an age-related age regulatory sequence selected from consisting of SEQ ID

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NO:1 and portions thereof.

13. (Currently Amended) [[A]] An isolated mammalian host cell containing the recombinant

expression vector of Claim [[7]] 1.

14. (Currently Cancelled).

15. (Currently Amended) The isolated mammalian host cell of Claim 13, wherein said host

cell is a gamete.

Claims 16-20 (Currently Cancelled).

21. (Currently Amended) [[The]] A treated isolated mammalian cell produced by the method

of Claim 2.

22. (New) The method of Claim 2, wherein said age regulatory sequence consists of SEQ ID

NO:93.

23. (New) The method of Claim 2, wherein said age regulatory sequence further comprises

in operable combination an age regulatory sequence consisting of SEQ ID NO:1.

24. (New) The age regulatory nucleic acid sequence of Claim 3, further comprising in

operable combination an age regulatory sequence consisting of SEQ ID NO:1.

25. (New) The age regulatory nucleic acid sequence of Claim 6, further comprising in

operable combination an age regulatory sequence consisting of SEQ ID NO:1.

26. (New) A substantially purified age regulatory nucleic acid sequence consisting of SEQ ID

NO:3.

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27. (New) The age regulatory nucleic acid sequence of Claim 26, further comprising in operable combination an age regulatory sequence consisting of SEQ ID NO:1.

- 28. (New) The host cell of Claim 13, wherein said recombinant expression vector further comprises in operable combination an age regulatory sequence consisting of SEQ ID NO:1.
- 29. (New) The treated cell of Claim 21, wherein said recombinant expression vector further comprises in operable combination an age regulatory sequence consisting of SEQ ID NO:1.
- 30. (New) The treated cell of Claim 21, said treated cell is a gamete.